

10. MPE ESTIMATION

10.1.The Standard of MPE limit

FCC PART 2.1091&1.1310 IC Standard: RSS-102

10.2.Limit for General Population/ Uncontrolled Exposures

Frequency	Power density (mW/ cm ²)	Averaging time(minutes)
300MHz----1.5GHz	F/1500	30
1.5GHz---100GHz	1.0	30

Frequency(MHz)	Power density (mW/ cm ²)	Averaging time(minutes)
2412	1	30
2437	1	30
2462	1	30

Note: F= Frequency in MHz

10.3. Estimation Result

EUT: 300Mbps WIFI Range Extender Power Outlet Pass-through		
M/N: TL-WA860RE		
Test date: 2014-12-01	Pressure: 102.6±1.0kpa	Humidity: 53.5±3.0%
Tested by: Black_Yan	Test site: RF site	Temperature: 22.4±0.6°C

Test Mode	CH	Frequency (MHz)	Peak Output Power (dBm)	Output Power (mW)	Antenna Gain (dBi)	Antenna Gain (Linear)	PSD (mW/cm ²)
11b	CH1	2412	23.12	205.12	2	1.58	0.0647
	CH6	2437	23.20	208.93	2	1.58	0.0659
	CH11	2462	20.98	125.31	2	1.58	0.0395
11g	CH1	2412	20.55	113.50	2	1.58	0.0358
	CH6	2437	22.57	180.72	2	1.58	0.0570
	CH11	2462	20.96	124.74	2	1.58	0.0394
11n HT20	CH1	2412	20.28	106.66	2	1.58	0.0336
	CH6	2437	20.91	123.31	2	1.58	0.0389
	CH11	2462	19.48	88.72	2	1.58	0.0280
11n HT40	CH3	2422	17.20	52.48	2	1.58	0.0166
	CH6	2437	21.40	138.04	2	1.58	0.0435
	CH9	2452	17.69	58.75	2	1.58	0.0185

$$MPE = \frac{PG}{4\pi R^2} \quad (R=20cm)$$